



# Multi-Ration Heater (MRH)



## What It Is:

The Multi-Ration Heater (MRH) is a highly portable device used to rapidly heat Unitized Group Rations in a field environment. It is capable of heating a combination of Tray Packs and #10 cans in water for 45 minutes, providing hot food for 100 personnel.

## Why It's Needed:

Field feeding requires rapid rethermalization of previously cooked foods that are contained in polymeric trays and # 10 cans.

## How It Works:

The MRH uses a low cost, reliable, efficient, commercial off the shelf Beckett Burner, Model AF II 85 series burner. The burner is capable of burning JP-8 and diesel fuel. The double heat manifold allows for high heat transfer resulting in superior efficiency and low exhaust temperatures, producing 70,000 BTU/hr. The system is skid mounted, with all stainless steel construction. The inner tank conforms to the National Sanitation Foundation (NSF). The system is capable of operating in two modes, "boil" and "auto". In the "auto" mode a thermostat is used to maintain water temperature between 185° F and 195° F required for heating Tray Packs and #10 cans to the proper serving temperature. In the "boil" mode, the MRH has the capability to heat water to 212° F. Integrated within the MRH are a watertight electrical control box, pull-on/push-off switch, circuit breaker, tilt switch and low water sensor. The MRH operates on 115V/60Hz Single Phase Electricity. With a standard 5-gallon military fuel container, the MRH can operate for 10 continuous hours. The MRH has been successfully tested in cold, hot and tropical climatic conditions, rain and over the road conditions.

## Benefits:

The MRH uses a low cost commercial off the shelf burner that is supported by an established service and spare parts program with superior logistic support. The MRH can be operated both in a static location or used on the back of a High Mobility Multi-Purpose Wheeled Vehicle (HMMWV) for the Heat On The Move Concept.

The Multi-Ration Heater can be procured on Natick Performance Specification, MIL-PRF-32046. Two vendors have successfully supplied MRH to this specification which includes fuel can, fuel lines, power cord and three baskets.

## Point of Contact:

DoD Combat Feeding

Phone: COMM (508) 233-4402

E-mail: amssb-rcf@natick.army.mil



**NATICK  
SOLDIER  
CENTER**

Kansas St.  
Natick, MA  
01760  
nsc.natick.army.mil

rev 11-7-03